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EXAMINER	
POLTORAK, PIOTR	
ART UNIT	PAPER NUMBER
2134	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/806,562	DAILEY ET AL.	
	Examiner	Art Unit	
	PETER POLTORAK	2134	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *2/26/08*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1,3-9,11-17 and 19-21* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1,3-5,8,9,11,12,14,16,17 and 19-21* is/are rejected.

7)☒ Claim(s) *6,7,13 and 15* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

1. The amendment received on 2/26/08 has been entered.

Response to Amendment

2. Applicant's arguments have been carefully considered.

   In light of applicant amendment the previously presented objections are withdrawn.

3. *Applicant's arguments are directed towards the limitations of previously presented in claims 2 (currently included in the set of the independent claims). Specifically, applicant argues that Brownell does not teach "determining whether the firmware update application has access to a predetermined encryption key utilized by the computer system". The most relevant support of applicant's allegation is found on pg. 10 of the Remarks:*

   > "Brownell, at best, teaches that in order to verify the signature of a certificate 122, authorization verifier 147B uses a certificate authority *public key* 141B, which is widely and publicly distributed within the system of intended use such that application 102 and components 104A-B all have access to a copy of this public key. (Brownell, col. 7). That is, in Brownell, the verifier uses a public key that is accessible by all applications and components in order to verify a certificate. This is in direct contrast to the system and methods of the present invention, in which a determination is made as to whether the encryption key that the firmware update application has access to is, indeed, the same (private) key that the computer system (such as the BIOS) has access to. Unlike in Brownell, it is not always the case that the key will be the same between the BIOS and the firmware update application, and thus, verifying that the firmware update application has access to this same key as the computer system provides verifying information."

   The examiner does not find the argument and the support persuasive.

   In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e. "Unlike in Brownell, it is not always the case that the key will be the same between the BIOS and the firmware update application, and thus, verifying that the firmware

update application has access to this same key as the computer system provides verifying information") are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993). The claim language does not prevent a key to be accessible by all applications and components. Similarly, the claim language is silent regarding the requirement of the key between the BIOS and the firmware update application being the same or not the same. The claim limitation at best requires the key to be a predetermined key (any key used in verification process reads on a predetermined key).

4. Claims 1, 3-9, 11-17, 19-21 have been examined.

   The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claim Rejections - 35 USC § 103

5. Claims 1, 3, 5, 8-9, 11-12, 14 and 16-17, 19-21 are rejected under 35 U.S.C. 103(a) as unpatentable over Applicant Admitted Prior Art (AAPA) in view of Brownell (USPN 6965994) and further in view of Freeman (USPUB 20040006700).

   As per claims 1 and 16, AAPA discloses saving a firmware update application and firmware, restarting the computer system, causing the computer system to recognize that a firmware update is available, locating the firmware update application and the

firmware, and initiating the firmware update application (the specification, pg. 2 lines 15-23).

6. AAPA does not explicitly disclose saving the firmware update application to the computer system. However, saving the firmware update application to the computer system, if not inherent, would have been at least implicit. In order to save data into a diskette, as shown by AAPA, the diskette must be placed into a computer system. (This concept of saving data into a diskette that is a part of the computer system is old and well-known as illustrated by Abit.) Furthermore, in order for a computer system to be able to run a computer application (or any computer code) the application must be saved (stored at least temporary) in Random Access Memory of the computer system.
7. AAPA does not disclose verifying that the firmware update application has the authority to perform activity (e.g. to perform the firmware update).

   Brownell (USPN 6965994) discloses verifying an application authorization to perform particular activity (Brownell, col. 2 lines 23-33). It would have been obvious to one of ordinary skill in the art at the time of applicant's invention to verify that the firmware update application has the authority to perform activity (such as to perform the firmware update). One of ordinary skill in the art would have been motivated to perform such a modification in order to significantly enhance security.
8. The authorization of the application disclosed by Brownell includes encrypting and decrypting validation data associated with the application (corresponding to the firmware update application) and the associated module (the firmware, see. Col. 5

line 1- line 6 line 35. However, note that col. 7-8 further discusses the encrypting/decrypting of validation data).

Furthermore, Brownell discloses that the step of determining whether the application has access to a predetermined encryption key utilized by the computer system (e.g. Brownell, col. 6 lines 41-48, for example).

9. As per claims 3 and 10-11, Brownell discloses encrypting a token with a predetermine encryption key, the result being a first encrypted token, providing the uncrypted token to the application, encrypting the token at the application, the result being a second encrypted token, comparing the first encrypted token and the second encrypted token, and allowing the application to run if the first encrypted token matches the second encrypted token (e.g. col. 8 line 41 – col. 10 line 10).
10. The limitations of claims 5, 14 and 17 are implicit. Computer programs that verify particular conditions (e.g. whether a program is authorized) act based on a found result (e.g. was the condition met? This is frequently done by using Boolean operators (True/False), see Wikipedia for example). The result reads on a flag.
11. As per claims 8 and 20, using the firmware update application that is DOS-based application is an obvious variation that is well known in the art (e.g. Abit). One would have been motivated to use DOS-based firmware update applications especially in light of the benefits of these firmware updates as evidenced by their commercial success.
12. As per claim 9 and 21, AAPA in view Brownell does not disclose verifying that the user is authorized to update the target device.

However, verifying that a user is authorized to conduct any updates on a particular device (e.g. firmware updates) is old and well-known in the art of computer security. *(Typical systems (e.g. computers running Windows based OS) utilize access controls on their files systems and access to particular files (e.g. configuration files) is restricted to only special groups (e.g. administrator). When an access to a file (e.g. write/change) is requested the system verifies that the user has sufficient privileges to perform action on this file. Note, that in addition to file permissions, Windows OS also utilizes users rights that also restrict users to only a particular set of activities. For more information see Windows NT or Windows 2000).* It would have been obvious to one of ordinary skill in the art at the time of applicant's invention to include authorization of a user. One of ordinary skill in the art would have been motivated to perform such a modification in order to ensure the computer system security and integrity.

13. As per claim 12, verifying a user provided password is the primary mechanism of the user authentication in computer systems, such as previously discussed Windows OS (see Windows, "The Log-On Process").

14. As per claim 19, the examiner considers a password, which is associated with the user verified to be authorized to implement updates, to read on an administrative password.

15. Claim 4 is rejected under 35 U.S.C. 103(a) as unpatentable over Applicant Admitted Prior Art (AAPA) in view of Brownell (USPN 6965994) and further in view of Freeman (USPUB 20040006700).

AAPA in view of Brownell discloses performing a firmware update comprising verifying that the firmware update application has the authority to perform the firmware update by determining whether the firmware update application has access to a predetermined encryption key.

16. AAPA in view of Brownell do not disclose that the predetermined encryption key is maintained by the BIOS of the computer system.

Freeman discloses a predetermined encryption key maintained a BIOS of a computer system that is used in verify authority of an application (instructions executed to initiate system attribute modification for the computer system, [0021-0026]). It would have been obvious to one of ordinary skill in the art at the time of applicant's invention to include Freeman's invention to maintain the predetermined encryption key, used in verifying authority of the application, in a BIOS of a computer system. One of ordinary skill in the art would have been motivated to perform such a modification in order to ensure that the application's authenticity.

Conclusion

Claims 6-7, 13 and 15 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Peter Poltorak whose telephone number is (571) 272-3840. The examiner can normally be reached Monday through Thursday from 9:00 a.m. to 4:00 p.m. and alternate Fridays from 9:00 a.m. to 3:30 p.m

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kambiz Zand can be reached on (571) 272-3811. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/Peter Poltorak/

Examiner, Art Unit 2134

/Kambiz Zand/

Supervisory Patent Examiner, Art Unit 2134